

CLAIMS

What is claimed is:

1. A system for allowing form and pointer synchronization between users sharing hypertext documents using web browsers, the system comprising:
  - 5 (a) a secure control applet associated with a web browser on a client computer for sending and receiving form and pointer update information received from a user co-browsing a non-secure web page;
  - 10 (b) a non-secure control applet associated with the web browser on the client computer for sending and receiving form synchronization and pointer update information received from a user co-browsing a non-secure web page;
  - 15 (c) at least one callback function for detecting a form modification or a pointer update from a user of the web browser, for determining whether the form modification or pointer update occurs in a secure or non-secure web page, and for sending a form modification or pointer update message to the secure control applet in response to determining that the form modification or pointer update occurs in a secure web page and to the non-secure control applet in response to determining that the form modification or pointer update occurs in a non-secure web page; and
  - 20 (d) a co-browse server for receiving form modification and pointer update messages from the secure and non-secure control applets and for broadcasting the messages to participants in a co-browsing conference.
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2. The system of claim 1 wherein the secure control applet is downloaded using the secure hyper-text transfer protocol (HTTPS).
3. The system of claim 1 wherein the non-secure control applet is downloaded using the non-secure hyper-text transfer protocol (HTTP).
- 5 4. The system of claim 1 wherein the callback function includes a first callback function for detecting form modifications and notifying the appropriate secure or non-secure control applet and a second callback function for detecting pointer updates and notifying the appropriate secure or non-secure control applet.
- 10 5. The system of claim 1 wherein the co-browse server is adapted to broadcast a form modification or pointer update message to secure control applets of participants in a co-browsing conference in response to receiving the form modification or pointer update from the secure control applet.
- 15 6. The system of claim 1 wherein the co-browse server is adapted to broadcast a form modification or pointer update message to non-secure control applets of participants in a co-browsing conference in response to receiving the form modification or pointer update from the non-secure control applet.
- 20 7. The system of claim 1 wherein the control applets are adapted to display form modifications and pointer updates to conference participants in response to the messages received from the co-browse server.
8. A method for form modification and pointer synchronization in secure and non-secure web documents among participants in a co-browsing conference, the method comprising:
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- (a) establishing a web conference that allows multiple participants to simultaneously view web documents;
- (b) detecting form modifications and pointer updates by the participants in secure and non-secure web documents;
- 5 (c) determining whether the form modifications and pointer updates occur in secure or non-secure web documents;
- (d) in response to determining that a form modification or pointer update occurs in a secure web document, notifying a co-browse server via a secure control applet; and
- 10 (e) in response to determining that a form modification or pointer update occurs in a non-secure web document, notifying a co-browse server via a non-secure control applet.

9. The method of claim 8 wherein establishing a web conference includes downloading, to each of the participants, a shared web page including form update and pointer synchronization scripts for detecting form updates and pointer actions by the participants and for notifying the co-browse server.

10. The method of claim 8 wherein establishing a web conference includes downloading the secure and non-secure control applets to each of the participants.

11. The method of claim 9 wherein the detecting form modifications and pointer updates includes executing the form update and pointer synchronization scripts.

12. The method of claim 8 wherein notifying a co-browse server via a secure control applet includes notifying the co-browse server via encrypted messages.
13. The method of claim 8 wherein notifying a co-browse server via a secure control applet includes notifying a co-browse server via an HTTP JAVA control applet.
14. The method of claim 8 comprising, at the co-browse server, in response to receiving a form modification or pointer update in a secure web page, broadcasting the form modification or pointer update to the conference participants' secure control applets.
15. The method of claim 8 comprising, at the co-browse server, in response to receiving a form modification or pointer update in a non-secure web page, broadcasting the form modification or pointer update to the conference participants' secure control applets.
16. A computer program product comprising computer-executable instructions embodied in a computer-readable medium for performing steps comprising:
  - (a) establishing a web conference that allows multiple participants to simultaneously view web documents;
  - (b) detecting form modifications and pointer updates by the participants in secure and non-secure web documents;
  - (c) determining whether the form modifications and pointer updates occur in secure or non-secure web documents;

(d) in response to determining that a form modification or pointer update occurs in a secure web document, notifying a co-browse server via a secure control applet; and

(e) in response to determining that a form modification or pointer update occurs in a non-secure web document, notifying a co-browse server via a non-secure control applet.

17. The computer program product of claim 16 wherein establishing a web conference includes downloading, to each of the participants, a shared web page including form update and pointer synchronization scripts for detecting form updates and pointer actions by the participants and for notifying the co-browse server.

18. The computer program product of claim 16 wherein establishing a web conference includes downloading the secure and non-secure control applets to each of the participants. .

19. The computer program product of claim 17 wherein the detecting form modifications and pointer updates includes executing the form update and pointer synchronization scripts.

20. The computer program product of claim 16 wherein notifying a co-browse server includes notifying the co-browse server via encrypted messages.

21. The method of claim 16 wherein notifying a co-browse server via a secure control applet includes notifying a co-browse server via an HTTP JAVA control applet.

22. The computer program product of claim 16 comprising, at the co-browse server, in response to receiving a form modification or pointer update in a

secure web page, broadcasting the form modification or pointer update to the conference participants via their secure control applets.

23. The computer program product of claim 16 comprising, at the co-browse server, in response to receiving a form modification or pointer update in a non-secure web page, broadcasting the form modification or pointer update to the conference participants via their non-secure control applets.

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